

**WHAT IS CLAIMED:**

1. A method for reducing biological burden on mail, comprising:

(a) applying a continuous stream of Ox to said material in a sealed biological burden reduction chamber, wherein said Ox includes oxygen and its radicals; and

5 (b) maintaining a predetermined pressure, temperature and relative humidity in said biological burden reduction chamber.

2. The method of claim 1, wherein said biological burden reduction chamber is constructed from an ozone resistant polymer.

10 3. The method of claim 2, further comprising conducting said biological burden reduction out in the field.

4. The method of claim 3, further comprising delivering said biological burden reduction chamber to an appropriate test facility to confirm an absence of biological burden.

15 5. The method of claim 2, wherein said biological burden reduction chamber further comprises two or more gas inlet ports and two or more gas outlet ports, wherein said two or more gas inlet ports and said two or more gas outlet ports permit said continuous flow of Ox to evenly penetrate said mail.

6. The method of claim 2, wherein said biological burden reduction chamber is maintained at ambient temperature.

20 7. The method of claim 2, wherein said biological burden reduction is conducted for a time of about 4 to about 20 hours.

8. The method of claim 7, wherein said biological burden reduction is conducted for a time of about 8 hours.

9. The method of claim 2, wherein said biological burden reduction is conducted using an ozone concentration of about 2% to about 8%.

10. The method of claim 2, wherein said biological burden reduction is conducted at a relative humidity below the dew point of ambient humidity.

5 11. The method of claim 2, wherein said biological burden reduction is conducted at a temperature of about 40°F to about 100°F.